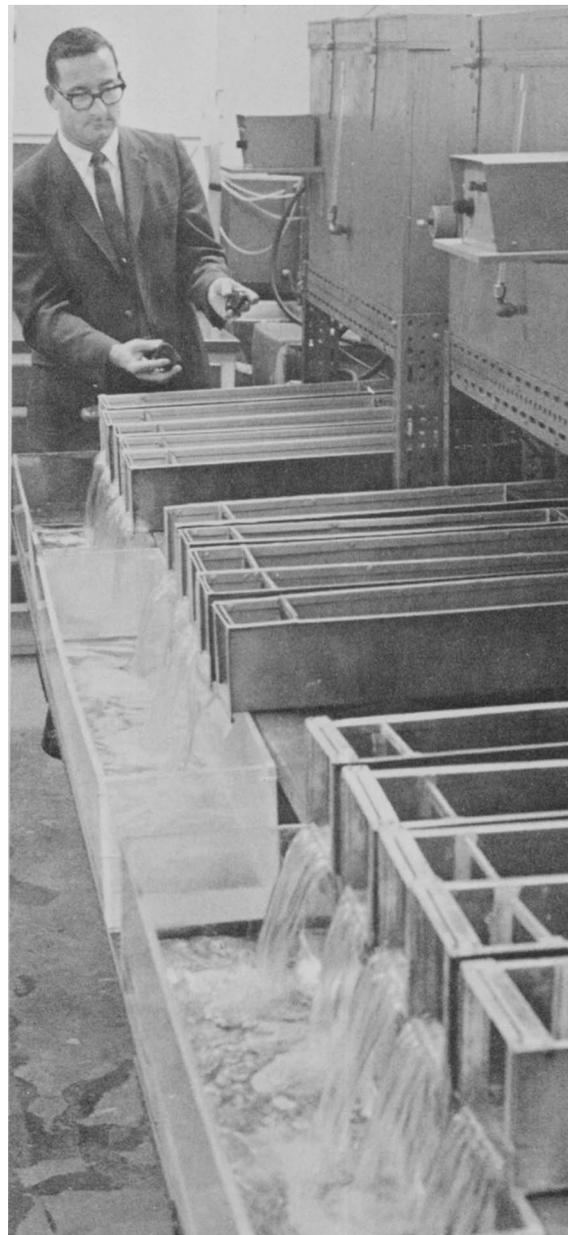


MINI-STREAMS AID POLLUTION STUDIES AT U.C. DAVIS

THE IMPACT OF POLLUTION on California's wild waterways is being studied in laboratories at Davis with the help of miniature streams flowing in metal and plastic channels—complete with pebbles, insects, crustaceans, algae, and other tiny organisms that are part of the food chain for fish, and fish themselves. The experiments are designed to measure the tolerance of aquatic life in California waters to pollution and other man-created changes in the environment—assuming that it will be necessary to live with certain levels of such changes. The studies cover not only such things as sewage, salts, pesticides, and herbicides, but also heat ("thermal pollution") and other aspects of the aquatic environment. Salinity, turbidity, water flow, temperature, and even dissolved oxygen can be measured precisely under controlled conditions in the laboratory streams. Of particular concern to the scientists is environmental quality in California waterways where the pollution threat is greatest—from the lower Sierras through the Central Valley, and into the Delta and San Francisco Bay. Robert Brocksen, Fisheries Biologist with the Department of Animal Physiology and Institute of Ecology, (cover photo), is involved with studies that include measurements of the growth of fingerling trout and the exact amounts of food-energy they consume in a stream under specific water temperature and feeding conditions. Allen Knight (photos on this page), Water Scientist with the Department of Water Science and Engineering, is specializing in the effects of pollution on the fishes' prey, the larvae, small shrimp, other tiny swimmers and bottom crawlers, as well as the algae and microscopic organisms in the food chain.



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